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ABSTRACT

Designed to assist media specialists in planning computer-related library instruction for students, this guide emphasizes the use of the computer as a teaching tool and contains activities which teach students how to use the computer to store, access, and manipulate data. A scope and sequence chart indicates the skills required to meet 10 information retrieval and media production objectives and the appropriate grade levels for addressing these skills, which include the use of computer hardware and software. The 11 activities that are presented range from a social studies packet for the third grade which involves use of print reference materials to locate information about Ghana and word processing to write and edit a report, to research methods and tools--including online computer searching--to access information for a research paper in psychology for students in grades 10-12. For each activity, information is given for curriculum correlation, grade level(s), type of activity objectives, materials/equipment needed, steps for implementation, and management strategies. Guidelines on software copyright are presented for students and school personnel as well as a sample software policy statement and administrative copyright regulations for the Montgomery County Public Schools (MCPS). A glossary of computer terms and a list of MCPS resources complete the document. (JB)

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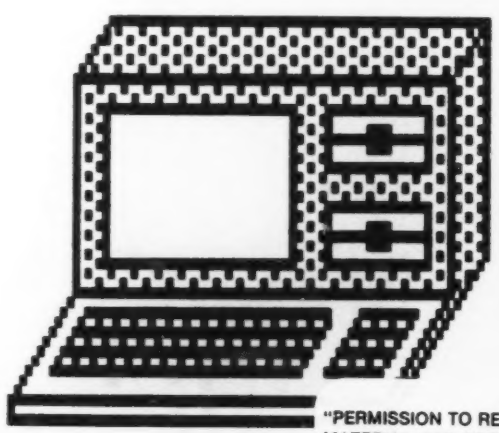
MICROCOMPUTER

UTILIZATION

FOR LIBRARY/MEDIA

CENTER INSTRUCTION

K-12



DEPARTMENT OF INSTRUCTIONAL RESOURCES
MONTGOMERY COUNTY PUBLIC SCHOOLS
ROCKVILLE, MARYLAND

FALL 1985

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MICROCOMPUTER UTILIZATION FOR LIBRARY MEDIA CENTER INSTRUCTION

K-12

Montgomery County Public Schools
Department of Instructional Resources
School Library Media Programs
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Rockville, Maryland 20850

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Rockville, Maryland

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I INTRODUCTION

This handbook has been developed to assist media specialists as they plan for computer-related experiences for students. Handbook emphasis is on the use of the computer as an instructional tool and on activities which teach students how to use the computer to store, access, and manipulate data. It includes additions to the Instructional Objectives for Information Retrieval and Media Production, several descriptions of instructional activities, information about copyright, definitions of computer terminology, and a list of relevant MCPS resources.

II INFORMATION RETRIEVAL AND MEDIA PRODUCTION UPDATE

The following Information Retrieval and Media Production Objectives pertain to computer hardware and software. Some have been drawn from the existing set of objectives; others have been added to update the document. Additions include II A1s, II D15, II M, and II N.

I. Access to Library Media Center Resources

A. Location of Resources

The student will

1. Explain the arrangement of
   d) Nonprint.....
2. Use call numbers to locate
   d) Nonprint.....
3. Explain composition of call numbers for
   d) Nonprint.....

II. Use of Library Media Center Resources

A. Parts of Materials

The student will

1. Identify the following parts of materials
   q) Containers for nonprint materials....
   r) Information on labels for nonprint materials.....
   s) Computer software documentation.....

C. Card Catalog

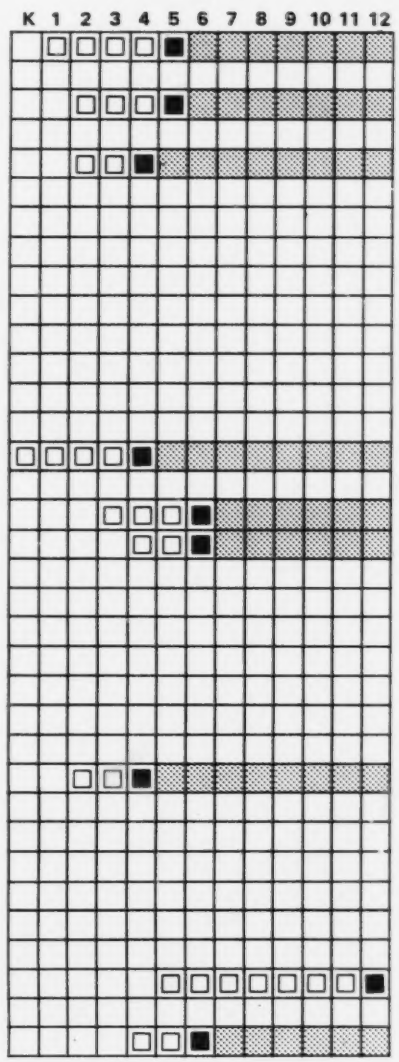
The student will

3. Identify, on a catalog card
   a) call number (include media code for nonprint).....

D. General Reference Skills

The student will

14. Determine the most appropriate software for a particular purpose.....
15. Use documentation/menu(s) to access specific segments of a computer program



M. Equipment

The student will

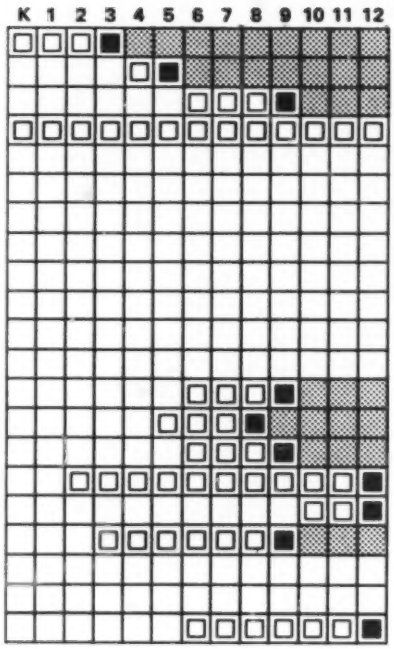
1. Operate without assistance
   - +y) Microcomputer.....
   - +z) Printer.....
   - aa) Modem.....
   - bb) Other computer peripherals.....

N. Information Management Programs and Telecommunications

The student will

1. Use utility programs to organize and manipulate information
   - a) Data bases.....
   - b) Word processing.....
   - +c) Graphing.....
   - +d) Graphics.....
   - +e) Spread sheets.....
   - +f) Shells.....

2. Use telecommunications networks to access information.....



III.1 ACTIVITIES

Social Studies-Ghana
Curriculum Correlation

3
Grade Levels

Ghana Research Packet
Title

Multireference Skills
Type of Activity

IRMP OBJECTIVES

II F. Encyclopedias-The student will (Encyclopedia, Almanac, Atlas, Word Processing)

2. Locate articles in the volumes

G. Almanacs-The student will

3. Use index to locate specific information
4. Use bold face headings to locate relevant segment of the page

H. Atlases-The student will

1. Locate and decode symbols used

M. Equipment-The student will

1. Operate without assistance
   y) Microcomputer
   z) Printer

N. Information Management Programs and Telecommunications-The student will
1. Use utility programs to organize and manipulate information
   b) Word processing

MATERIALS/EQUIPMENT NEEDED

Word processing software package (i.e., Bank Street Writer)
Ghana research packet and required reference books
Apple microcomputer and printer

DESCRIPTION OF ACTIVITY

During the Ghana study, third graders can work through a multireference research unit in the media center. The packet exposes students to a variety of reference tools (i.e., atlas, almanac, and encyclopedia). While the main intent of the activity is to become familiar with the reference tools for a given application, students will also produce a short report based on the research. The report is typed, using a word processor. The printed copy is attached to a piece of white art paper to allow room for an accompanying illustration. The class reports can then be bound to make a class book on Ghana.

MANAGEMENT STRATEGIES

1. Students will need hands-on experience with a word processor.

2. Instruction on the characteristics of each reference book must precede the unit.

3. Consider working with students in instructional groupings that meet routinely during the project.

4. Schedule student times on the computer(s)-printer(s). Allow no less than 20 minutes per student to type in a report.

5. Assign pairs of students to work at the computer to verify and assist with the typing.

Multidiscipline
Curriculum Correlation

3-12
Grade Levels

Crossword Puzzles
Title

Use of a shell computer utility
Type of activity

IRMP OBJECTIVES

II. D. 3. Determine most appropriate reference for a particular purpose
II. N. 1. f) Shells

MATERIALS/EQUIPMENT NEEDED

Crossword Magic Planning Sheet, Apple microcomputer, printer, Crossword Magic (or other crossword puzzle generating utility), reference source for answers/clues--i.e., vocabulary or concepts related to a unit of study; units from Media Skills Activities Handbook, such as "Maryland: Take the Seal Guided Tour"-MA(4) seals and mottos or "Thesaurus: A Book of Other Words" AR(5-6); and Dewey Decimal Number-Subject Heading.

DESCRIPTION OF ACTIVITY

The following are suggested steps for implementing a crossword puzzle activity with students:

1. Develop a form for recording answers and clues to be entered. (See samples that follow.)

2. Demonstrate use of Crossword Magic to class. Create a simple crossword puzzle to demonstrate adding answers, clues, and saving to a file diskette and printing.

3. Discuss (as a total group) what elements are necessary for a clue to be valuable.

4. Have students conduct research to generate answers and related clues.

5. Have pairs of students edit each others answers/clues. The media specialist should also check the worksheets. Number the answers from largest to smallest to determine the order in which they will be typed into the computer.

6. Schedule times for students (working in pairs) to enter answers/clues; save and print out crossword puzzles.

7. One student should verify typed-in data for the other student. Note: largest words should be entered first.

8. Have a student exchange of crossword puzzles.

9. Analyze answers/clues and discuss appropriateness of the entries. How might they be improved and why were they good?

10. Brainstorm additional possible applications of the computer program.

MANAGEMENT STRATEGIES

1. Schedule class time to meet with students, demonstrate the software, and conduct the research.

2. Work through the lesson.

3. Schedule time for students to work at the computer and printer. Allow about 20 minutes per student.

Name _____

Crossword Magic
Planning Sheet

Number typing order	**Answers** (must be one word)	**Clues** (may be 98 characters long-three lines)

Number typing order	**Answers** (must be one word)	**Clues** (may be 98 characters long-three lines)

LARC
Curriculum Correlation

5-6
Grade Levels

Book Browser
Title

Book Report, Location of Resources
Type of Activity

IRMP OBJECTIVES

I. A. 2.b), 3.b) Use call numbers to locate fiction. Students explain composition of call numbers for fiction.

II. N. 1.a) Use utility programs to organize and manipulate information.

MATERIALS/EQUIPMENT NEEDED

Fiction books
Computer with auxiliary monitor for demonstration
Printer
Blank disks
"Story Tree" computer program
Book report form

DESCRIPTION OF ACTIVITY

1. Have students select books with a "hero" theme.
2. Have students read books (1-2 weeks).
3. Introduce "Story Tree," "Book Browser" selection, using auxiliary monitor.
4. Discuss the program's branching and mapping techniques. Brainstorm with class or possible categories for the books read. Possible categories:

   a) The Hero Who Faced Danger
   b) The Hero Who Survived
   c) The Hero Who Proved Self
   d) The Hero Who Saved the Day

5. Have students divide into category groupings to brainstorm three to four additional categories that will fit their book's description more specifically (i.e., by setting, theme, or characterization).
6. Have students write a summary book report, using the "Story Tree" book report form.
7. Demonstrate to students how to enter the book reports and how to direct the program to further branching selections.
8. Schedule and have students enter in their book reports on the computer. Allow a minimum of 20 minutes per student.
9. Produce a printout of the resulting "Book Browser."

10. Create a display or booklet similar in form to an interactive or "Choose Your Own Adventure" book.

11. Make the program available to be read on screen by others.

MANAGEMENT STRATEGIES

Location: IMC, classroom

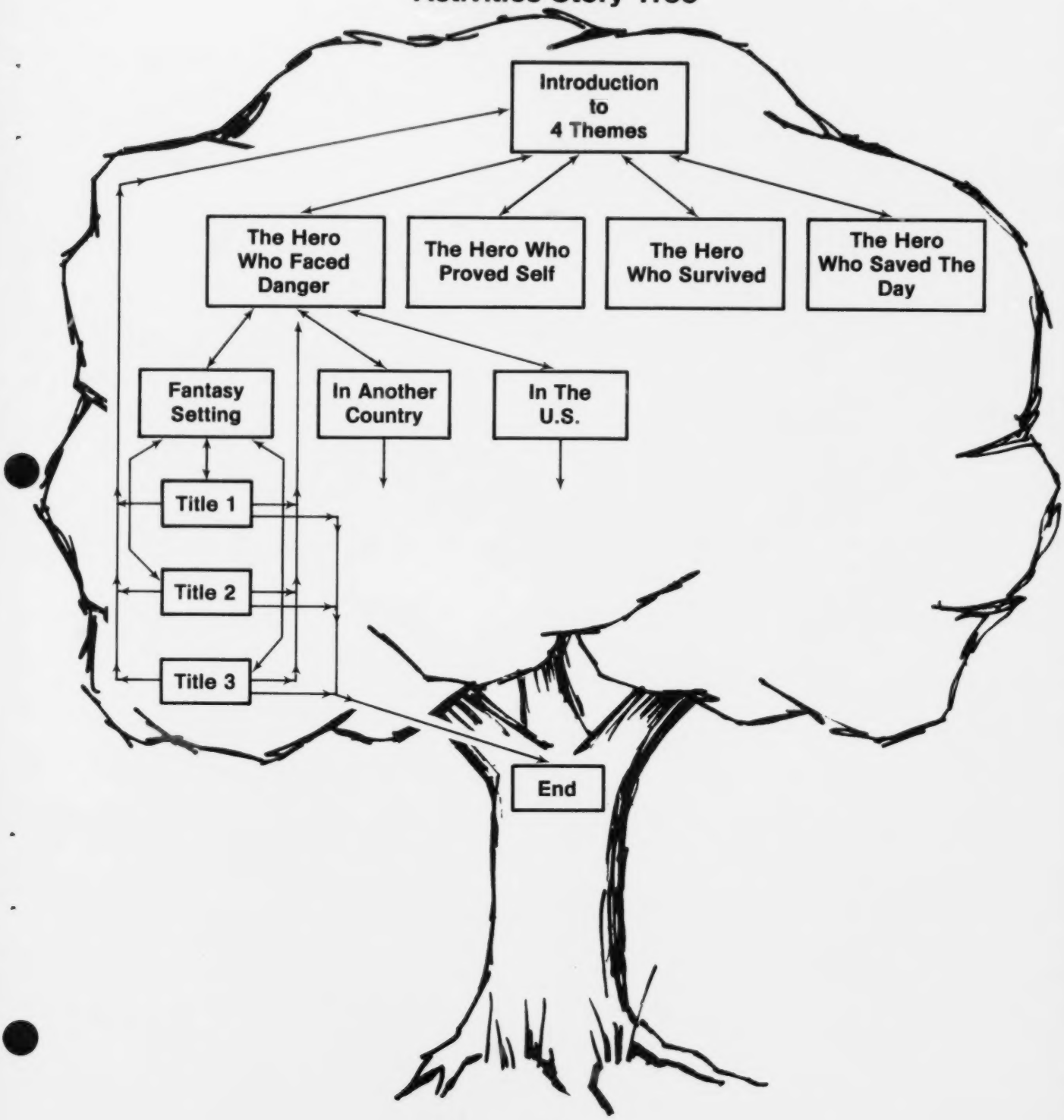
1. Schedule time for book selection, brainstorming, demonstrations, and entering of reviews into program.

2. Book computer equipment in advance.

3. Save book reviews until project is completed.

4. Make backup copies.

Activities Story Tree



BOOK REPORT FORM FOR "STORY TREE" ACTIVITY

Title:

Author:

Call Number:

Summary:

Choice Selections:	**Leads to**
1.	1.
2.	2.
3.	3.
4.	4.

Multidiscipline-See data sheets that follow
Curriculum Correlation

4-8
Grade Levels

Basic Steps for Implementing a Data Base Activity
Title

IRMP OBJECTIVES

II. N. 1.a) Use utility programs to organize and manipulate information.

II D General Reference Skills (specific objectives will be determined by type of data base and grade level).

MATERIALS/EQUIPMENT NEEDED

Reference sources; print and nonprint appropriate to topic and grade level
PFS:FILE, PFS:REPORT, (PFS:GRAPH-optional)
Apple Computer with auxiliary monitor for demonstration
One or more Apple computers for data entry
Blank disks
Data collection sheets
Transparency of data collection sheet

DESCRIPTION OF ACTIVITY

The following are suggested steps for implementing a data base activity with students:

1. Develop form for recording data. This could be done with students or by teacher and media specialist in advance. (See samples that follow.) Configure disk; enter sample records.

2. Demonstrate Add and Search functions of PFS:FILE to class, using auxiliary monitor and sample records on disk.

3. Discuss data collection sheet using transparency. Specify uniform terminology needed for specific fields of the record.

4. Assign or have students select topics.

5. Have students research, collect, and record data.

6. Have each student verify a classmate's data.

7. Teacher/Media Specialist check data sheets.

8. Enter data to configured disk, using PFS:FILE.

9. Demonstrate search strategy to class, using auxiliary monitor and printer.

10. Conduct a sample search with the class. Have students in small groups search the data base to answer teacher-generated or student-generated questions.

11. Demonstrate and use PFS:REPORT and PFS:GRAPH as appropriate.

12. Create a display of printouts and data sheets.

MANAGEMENT STRATEGIES

The following is a list of selected management strategies:

1. Schedule Media Center with teacher(s) for class use.

2. Book computer(s) and auxiliary monitor.

3. Specify references to be used for certain fields of information to standardize terminology.

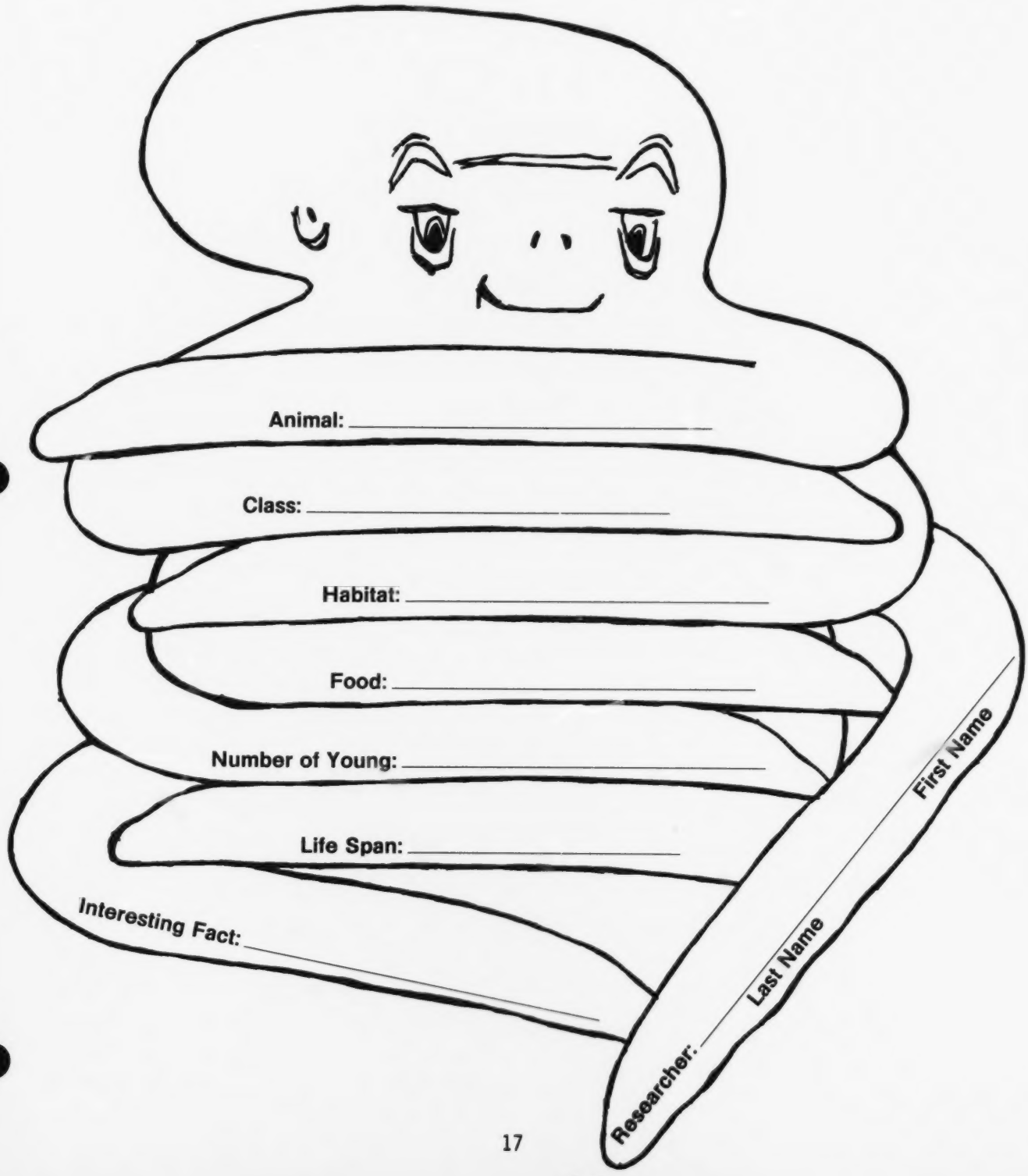
4. Establish a schedule for students to enter data.

5. Save all data sheets until project has been completed.

6. Make backup copies of disks daily.

7. If several computers and copies of PFS:FILE are available, format additional disks and use the "copy selected forms" function to merge records.

Animal Data Sheet



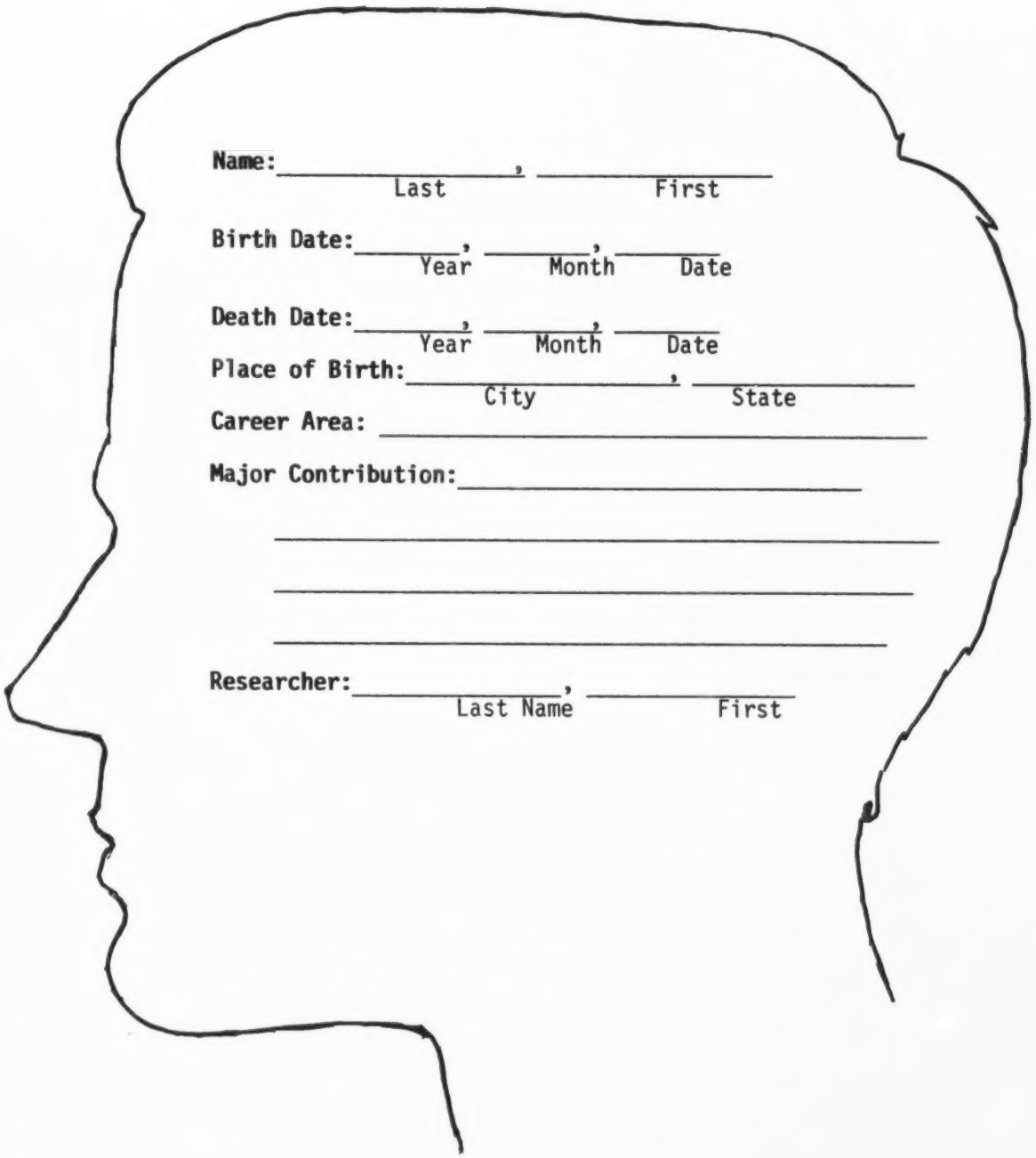
III.4 Activities

Management Suggestions for Animal Data Sheet:

Maintain consistency in field vocabulary.

Follow the management strategies listed for the Basic Steps for Implementing a Data Base Activity.

People Data Sheet



Name: _____, _____
Last First

Birth Date: _____, _____, _____
Year Month Date

Death Date: _____, _____, _____
Year Month Date

Place of Birth: _____, _____
City State

Career Area: _____

Major Contribution: _____

_____

_____

_____

Researcher: _____, _____
Last Name First

III.4 ACTIVITIES

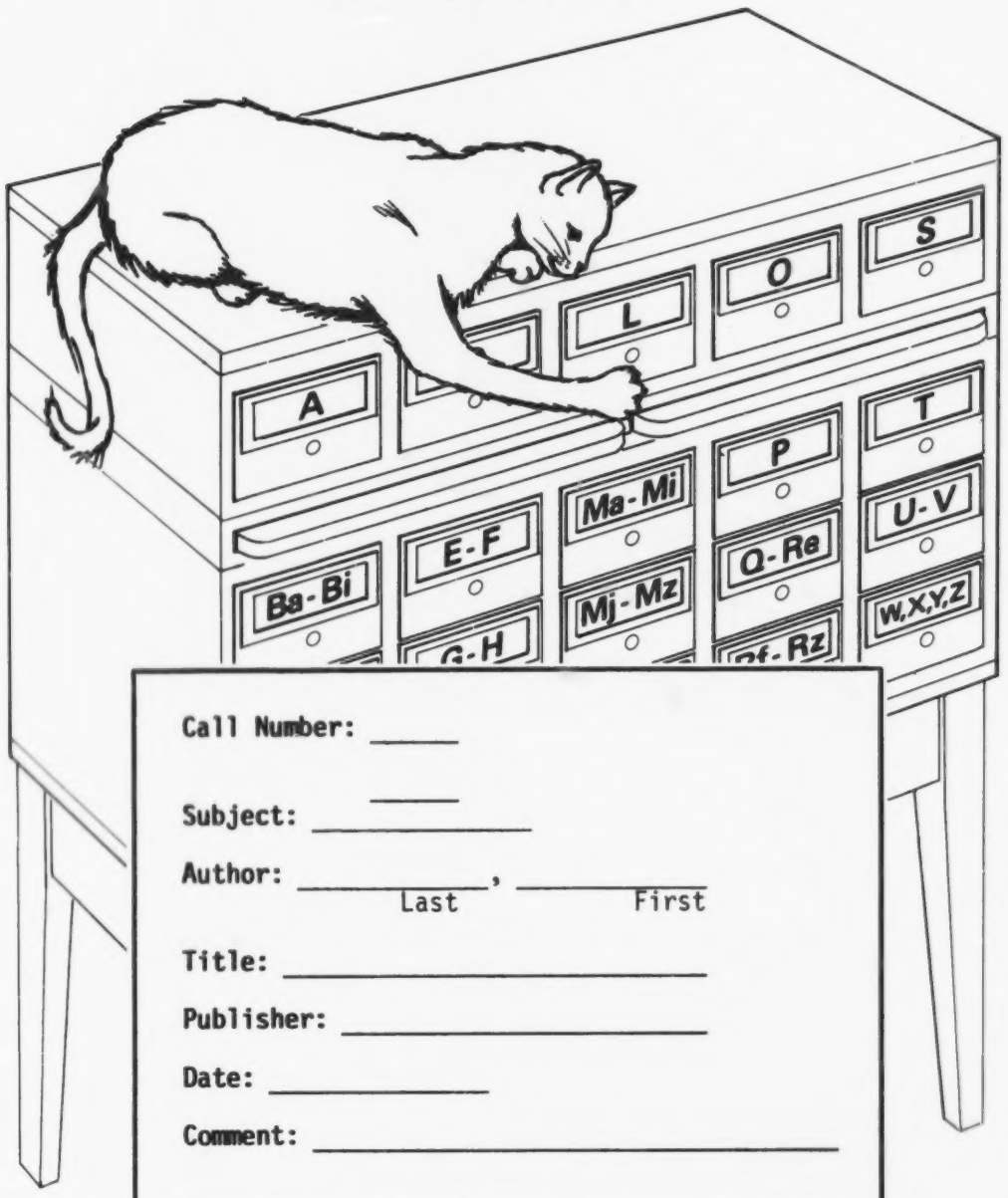
Management Suggestions for People Data Sheet:

To maintain consistency in the career category, it is recommended that a standard list of career areas be developed and used by all students.

Sample List:

Science
Literature
Mathematics
Music
Art
Government
Military
Sports
Medicine
Education
Acting
Exploration
Business
Technology (Inventors)

Mini-cat Data Sheet



Call Number: _____

_____

Subject: _____

Author: _____, _____
Last First

Title: _____

Publisher: _____

Date: _____

Comment: _____

_____

_____

_____

Recommended by: _____

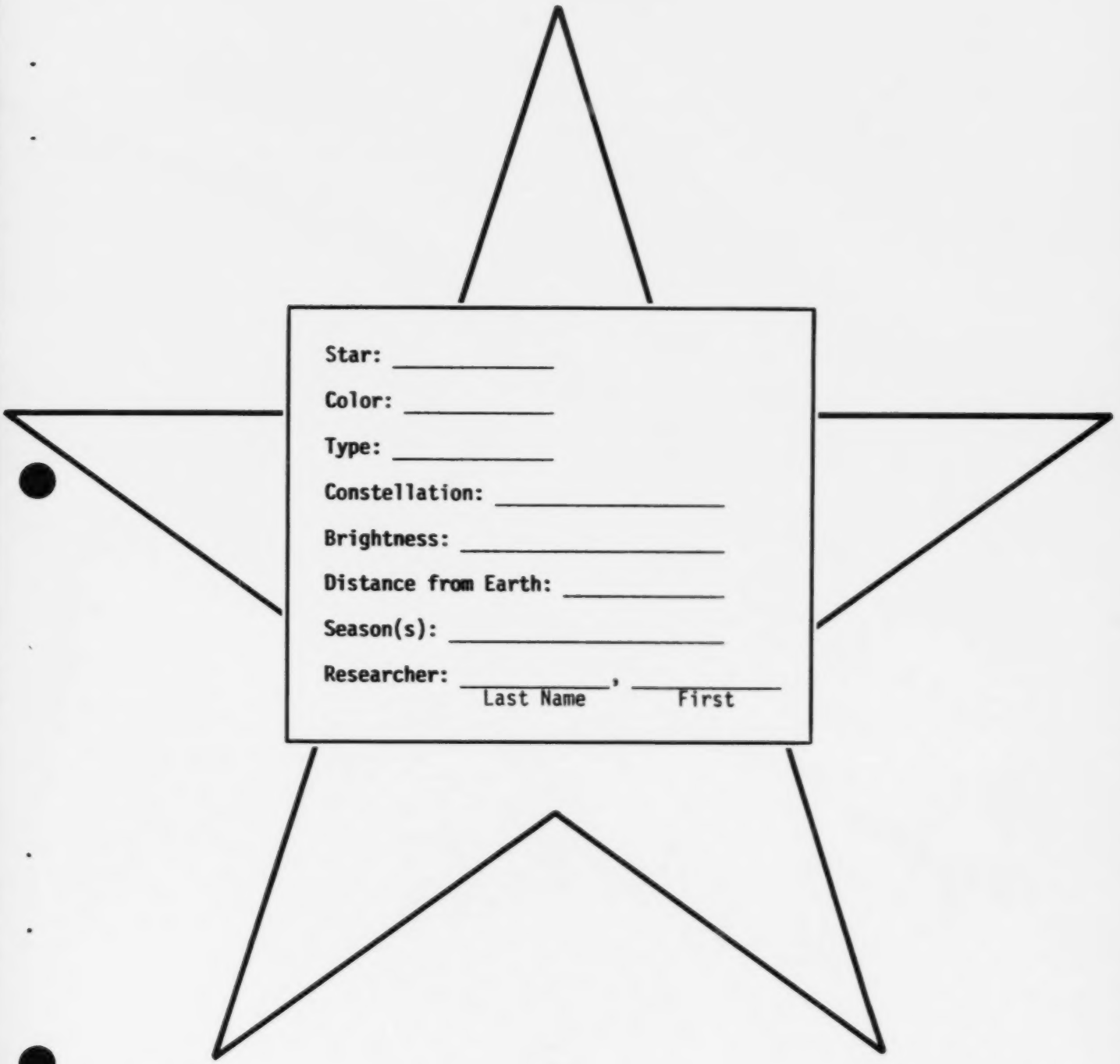
III.4 ACTIVITIES

Management Suggestions for Mini Cat Data Sheet:

1. Have students use one of the subjects found in the card catalog for each book.

2. When filling in the title category, have students delete articles at the head of titles.

Star Data Sheet



Star: _____

Color: _____

Type: _____

Constellation: _____

Brightness: _____

Distance from Earth: _____

Season(s): _____

Researcher: _____, _____
Last Name First

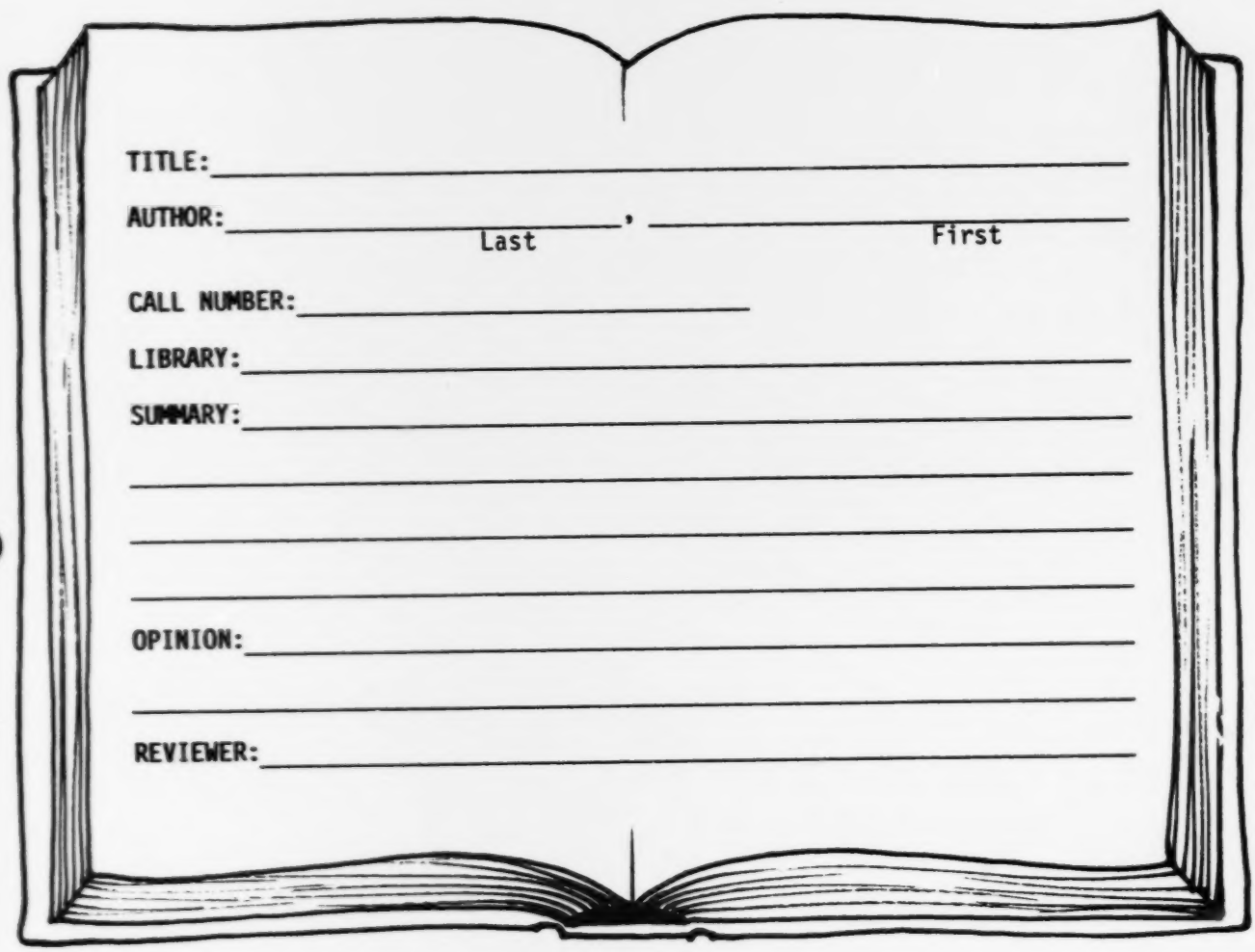
III.4 ACTIVITIES

Management Suggestions for Star Data Sheet:

To maintain consistency, make note of the following fields:

Color: Red, orange, yellow, white, or blue
Types: Main-sequence, supergiant, dwarf, or giant
Distance from Earth: In light-years
Constellation: If star does not appear in a constellation, write none.

Book Report Data Sheet



TITLE: _____

AUTHOR: _____ (Last), _____ (First)

CALL NUMBER: _____

LIBRARY: _____

SUMMARY: _____

_____

_____

_____

OPINION: _____

_____

REVIEWER: _____

III.4 ACTIVITIES

MANAGEMENT SUGGESTIONS

To maintain consistency:

1. Leave out article at the beginning of titles.

2. Library: School
   Name of public library
   Home

Social Studies/Africa
Curriculum Correlation

6
Grade Level

Managing Information with Data Bases
Title

Data Base
Type of Activity

IRMP OBJECTIVES

I N 1a) Use utility programs to organize and manipulate information.

I D 3 Determine the most appropriate reference for a particular purpose.

MATERIALS/EQUIPMENT NEEDED

For a complete list, see:

Managing Information with Data Bases (available from CRI)

DESCRIPTION OF ACTIVITY

This activity introduces organizing and managing information with a data base. It is designed to support the sixth grade social studies unit on Africa. It includes:

Background information for teachers and media specialists
Bibliography
Lesson plans to introduce data bases
Lesson plans to introduce PFS:FILE
Lesson plans to use PFS:FILE in the study of Africa
Lesson plans to introduce PFS:REPORT and PFS:GRAPH
Activity masters, including AFRICA-DATA SHEET

MANAGEMENT STRATEGIES

Consult the document referenced above for detailed management strategies.

Social Studies
Curriculum Correlation

6, 7 or 8
Grade Levels

Electronic Data Bases and Bulletin Boards
Title

Demonstration
Type of Activity

IRMP OBJECTIVES

For a complete list, see:

Work Studies Data Base Activities
Electronic Data Bases and Bulletin Boards
(available from CRI)

DESCRIPTION OF ACTIVITY

Electronic Data Bases and Bulletin Boards is one segment of World Studies Data Base and contains information and materials developed to assist media specialists with the introduction of the modem, CompuServe Information Service, and electronic bulletin boards. Included are the following:

Background information for the media specialists and teacher
Lesson plan
Modem center
Transparency masters
An emulator disk containing samples from CompuServe and from electronic bulletin boards

MANAGEMENT STRATEGIES

Included in packet referenced above.

Social Studies
Curriculum Correlation

7-8 (also 6 in middle school)
Grade Levels

Nations Data Base
Title

IRMP OBJECTIVES

II N 1a) Use utility programs to organize and manipulate information.

II D 3 Determine the most appropriate reference for a particular purpose.

MATERIALS/EQUIPMENT NEEDED

For a complete list, see:

World Studies Data Base Activities: Nations Data Base (available from CRI)

DESCRIPTION OF ACTIVITY

Nations Data Base is one segment of World Studies Data Base Activities. It includes:

- Background information for the teacher and media specialist.
- Lesson plans
- Data collection sheet
- Completed example of data collection sheet
- Sample search questions
- Directions for conducting a search

This data base activity is appropriate for multigrade involvement, i.e., Grades 7 and 8 in intermediate/junior and Grades 6, 7 and 8 in middle schools.

MANAGEMENT STRATEGIES

Consult the document referenced above for detailed management strategies.

III.8 ACTIVITIES

U.S. History I — Curriculum Correlation

9-12 — Grade Level

The Founding Fathers — Title

Research and use of word processor — Type of Activity

IRMP OBJECTIVES

II Nb The student will use utility programs to organize and manipulate information.

II F 1-14 The student will use encyclopedias to do research.

MATERIALS/EQUIPMENT NEEDED

Three microcomputers, Bank Street Writer program, Bank Street Speller program, auxiliary monitor, encyclopedias, "Founding Fathers" worksheet.

DESCRIPTION OF ACTIVITY

After a brief directed review lesson on the use of encyclopedias, the students will look up and take notes on a "Founding Father." The media specialist will demonstrate the use of Bank Street Writer and Bank Street Speller. The students will enter and edit their short report and bibliography and then print it out.

MANAGEMENT STRATEGIES

Time: 3 days
Class level: basic

III.8 ACTIVITIES

Biographic Sketch

Name _____

Date _____ Period _____

The Founding Fathers

Select one of the following as the subject of your paper:

James Madison

John Adams

Thomas Jefferson

George Washington

Alexander Hamilton

Henry Knox

Benjamin Franklin

IN THE LIBRARY

Find the volume of an encyclopedia that has information on your subject.

Read the article on your subject and take notes on his role in the founding and establishing of the government of the United States under the Constitution.

Ex: Type of Information

Did he attend the Constitutional Convention?

If so, what role did he play in the convention?

Did he hold an office in the new government? Which office(s)?

What did he do in this office?

What did he do to help establish the new government?

Do not take notes on information such as
Where or when he was born.
Who his parents were.
Where he lived.
Where he went to school.

Use only one volume of an encyclopedia.

When you have finished taking notes, be sure you note the title of the article you looked up, the title of the encyclopedia, the page(s), and the copyright date.

Next, use Bank Street Writer to write a rough draft of a paragraph describing the role this person played in the establishing the new government of the United States. Be sure you

1. Write complete sentences

2. Check your spelling with Bank Street Speller

3. Use proper grammar and punctuation

When you have completed your rough draft, have it checked by your teacher if you want to do so.

III.8 ACTIVITIES

Format for the rough draft:

Name _____

Date _____

Title

Paragraph

Bibliography:
"Title of article." Title of Encyclopedia. publisher. copyright date, page(s).

Ex:
"Washington: George." Encyclopedia Americana. Vol. W, 1980.
(Notice how the bibliography entry is punctuated.)

Now, see one of the librarians. They will help you print a copy of your paragraph, using the computer.

Modern Urban World
Curriculum Correlation

10-12
Grade Levels

Forecasting Population
Title

Statistical Collection and Spreadsheet
Type of Activity

IRMP OBJECTIVE

The student will use spreadsheets to organize and manipulate information.

II G 6 The student will differentiate between the almanac and statistical abstract.

MATERIALS/EQUIPMENT NEEDED

Statistical Abstract of the United States, World Almanac, microcomputer, VisiCalc or other spreadsheet program, auxiliary monitor, and "City Data" worksheet.

DESCRIPTION OF ACTIVITY

During a study of cities, the students will be asked to predict the future population of the particular city they are researching. The students will collect the necessary data as specified on the worksheet. The media specialist will demonstrate the use of VisiCalc or other spreadsheet program chosen. Students will enter their data and add the projections to their worksheets.

MANAGEMENT STRATEGIES

One class period, whole class activity for instruction, followed by individual research and entering information on data sheets.

III.9 Activities

CITY
DATA

Year (use census data)

	1 2 3 4	5	6	7
	1960	1970	1980	1990
A				
B				
C	Population			
D	Employment			
E	Birth			
F	Death			
G	Other			

FORMULA FOR PROJECTION:

((C6-C5/C6)C6 + C6)=C7

or 1970 pop = 1000
1980 pop = 900

((900-1000/900)*900+900)=800 est. pop.

1. Collect data.
2. Enter data into grid.
3. Enter data into VisiCalc and add predictions to your own data chart.
4. Other statistics may be used after population is predicted.
5. Each student is assigned a different city for data collection.

III.10 ACTIVITIES

Contemporary Issues
Curriculum Correlation

10-12
Grade Level

U.S. Foreign Policy and Vietnam
Title

Multiple Research Tool Project
Type of Activity

IRMP OBJECTIVES

II K 1d,e,f,g,2,3,4 The student will use periodical indexes to locate specific articles, locate pages and abbreviations, decode symbols, and use cumulative supplements to the Unabridged Readers' Guide, New York Times Index, microform indexes, and specialized indexes.

II N 2 The student will use telecommunications networks to access information.

MATERIALS/EQUIPMENT NEEDED

Microcomputer, modem, Data Capture program, DIALOG slides, slide projector, MICROCAT, ILL form, "Request for an On-Line Search" form, and bibliographic format sheet

DESCRIPTION OF ACTIVITY

The media specialist will
- Show slides on DIALOG.
- Review reference sources used.
- Review MICROCAT and ILL.
- Discuss "Request for an On-Line Search".
- Review bibliographic format.

On a topic related to the Vietnam War, the students will
- Search.
- Locate citations.
- Summarize information from mutliple reference sources.
- Develop a search strategy for an on-line search, using DIALOG.

III.10 ACTIVITIES

NAME _____

REQUEST FOR ON-LINE SEARCH

1. Topic:

2. Key Words:

3. Synonyms (List synonyms for all key words, including scientific names. Be sure all words are spelled correctly by checking with Webster's.)

4. Broader terms:

Narrower terms: (use ones applicable)
Time period _____
Language _____
Age groups _____
Others _____

5. How much material?
___ comprehensive
___ 1-5 really good articles

REQUEST FOR DOCUMENT

(Periodicals) MILO Location:

(Books) MICROCAT Location
CALL NO. _____
LOCATIONS _____

III.10 ACTIVITIES

The Vietnam War

I. Topics

Choose one of the following topics.

Hi Chi Minh	French Involvement in Indochina
Dien Bien Phu	National Liberation Front
Tet Offensive	Prisoner of War Camps
Mai Lai	Agent Orange Controversy
VietCong	Anti-War Movement
Gulf of Tonkin	

II. Procedures

A. Locate and list specific citations from the following (at least one for each):

Readers' Guide

Microfilm/microfiche (N.Y. Times Index, MICROCAT) (Include ILL Form)

Vertical file

Facts on file

Card catalog

DIALOG sources: (Use MILO and ILL forms)

III. Compile bibliography of sources located, and write a brief report, summarizing the who/what/when/why/how and type data.

MANAGEMENT STRATEGIES

Three days are required, one for instruction, and two for research. To facilitate the search, the class is divided into five groups by the topic chosen.

III.11 ACTIVITIES

Psychology 1 or 2
Curriculum Correlation

10-12
Grade Level

Research Methods and Tools
Title

General Research
Type of Activity

IRMP OBJECTIVES

II D 3 The student will determine the most appropriate reference for a particular purpose.

II N 2 The student will use telecommunications to access information.

MATERIALS/EQUIPMENT NEEDED

Data Capture program, microcomputer with modem, reference books, periodicals, overhead projector, Resource Path Finder from MCPS Media Skills Activities Handbook (MICROCAT unit)

DESCRIPTION OF ACTIVITY

Review reference sources and methods of retrieving information. The media specialist will analyze Resource Path Finder to determine need for on-line search and demonstrate on-line search, using DIALOG's Magazine Index.

Each student will follow worksheet after choosing a topic approved by the teacher and will aid the librarian in conducting an on-line search. Follow up will be locating an article retrieved or printing out a full-text article.

MANAGEMENT STRATEGIES

Day 1: Introduction and search for topic to class

Day 2: Demonstrate search techniques and continue research and searches to small groups

Day 3: Follow up and finish work, helping individual students

Culminating activity of a research paper will be done on the students' own time after the three days in the library media center.

III.11 ACTIVITIES

Name:
Period:
Date:

Research Methods and Tools in Psychology 2

RESOURCES

1. Card or microprint catalogs-Used on your Library Media Center, Montgomery County Public Library, Montgomery College, and MICROCAT (all Maryland libraries)

2. Readers' Guide to Periodical Literature and other indexes--The Readers' Guide is an index used to locate articles in many magazines. There are many other indexes used to locate books, plays, poems, and other written material.

3. Reference works-Encyclopedias, SIRS, Great Contemporary Issues, Handbook of General Psychology (Ref 150), International Encyclopedia of the Social Sciences (Ref 303), Biographical Dictionaries (Ref 920), and Current Biography (Ref 920).

4. Vertical File--Excellent source for pamphlets and articles clipped for student use. All subjects are listed in the Card Catalog.

5. On-line Computer Searches--Using the computer as a tool to search for articles in magazines or books. DIALOG is the system available to senior high school students.

REVIEW

Using Resources for Psychology

1. Readers' Guide to Periodical Literature--Locate one article on your chosen subject. Give the following information:

   Subject-

Title:
Magazine:
Volume: Pages: Date:

Does your Library Media Center have the magazine?

Is the article in microprint?

What library has the magazine?

Locate the article and write a brief summary.

2. DIALOG: Plan with your Library Media Specialist to do a computer search for your topic.

   Subject-

3. Locate a pamphlet or article in the Vertical File.

Title:
Publisher:
Date of publication:

Write a brief summary of the article or pamphlet.

4. Locate your subject in one of the reference books, print or nonprint collection or SIRS. Locate the following information:

   Subject

Title:
Author:
Call number:

5. Locate the MICROCAT. Look up your subject and find a book or article that relates to the subject. Give the following information:

   Subject:

   Title:

   Author:

   Call Number:

   Location:

IV SOFTWARE COPYRIGHT

COPYRIGHT

MICROCOMPUTER SOFTWARE

The issue of copyright must be addressed. Staff and students need to know the copyright law and Montgomery County Public School's Administrative Regulation EGB-RA: Obtaining a Copyright and Using Copyrighted Materials pertaining to this law.

The Copyright Act states that reproducing computer software without authorization violates the U.S. Copyright Law and is a federal offense. The purchase price for a software program represents a license for the use of the one copy unless otherwise stated by the copyright holder. Civil damages for unauthorized software copying can be as much as $50,000 or more and criminal penalties include fines and imprisonment.

The International Communications Industries Association says that producers of microcomputer software are keenly aware of the financial problems faced by schools, but these pressures do not excuse violations of the Copyright Act. "You and your students suffer the most because you'll:

Have fewer quality software selections.

Pay a higher price to offset the losses caused by those who copy without paying a cent."

11 DO'S AND DON'TS

1. Don't make a copy unless you have permission of the producer.

2. Be skeptical of those who say, "Go ahead and copy; nobody will ever know."

3. Don't believe anyone who says that the "Off-Air Guidelines" and the guidelines for books, periodicals, and music apply to microcomputer software. Computer software is very different, and no copyright guidelines have been approved by national educator-publisher negotiating committees which created the other guidelines.

4. Do buy enough software to get your job done. Buying enough will relieve the temptation to make unauthorized copies.

5. Don't load one diskette into several machines without authorization from the producer.

6. When licenses are offered by producers, buy the licenses and adhere to the limitations in the licenses. Going beyond the terms of a license is as much a violation of the law as any other unauthorized copying.

7. Don't allow computer clubs to use school facilities unless they agree in writing to adhere to the Copyright Act. By letting them stay, you share the legal liability with the club should they be apprehended.

8. Have strict rules to restrict the use of any "archival copy." While the law allows one archival copy, it may not be used in the classroom. Do keep it in a restricted area out of reach of all users.

9. If you accept a preview or on-approval copy from a producer, distributor, or dealer, be responsible for ensuring that no copies are made. The Copyright Law applies to previews just as it applies to software you have already purchased.

10. Don't authorize purchase of equipment specifically designed to break protection codes which are built into most software. Possession of such equipment, since its main use is to make unauthorized copies, may be used in court as evidence against you.

11. Do share with teachers, students, and administrative personnel a statement reflecting your personal respect for the Copyright Law. Your leadership will inspire others to maintain ethical practices.

Computer-Related Instruction has developed a Software Piracy policy statement that is currently being used in schools with computer labs and by all personnel taking computer classes from MCPS. This statement must be signed by all students and their parents prior to using school computers and software.

SOFTWARE PIRACY

THE COPYRIGHT LAW IS MEANT TO PROTECT THE AUTHOR OF A WORK SUCH AS A BOOK, A PIECE OF MUSIC OR A COMPUTER PROGRAM.

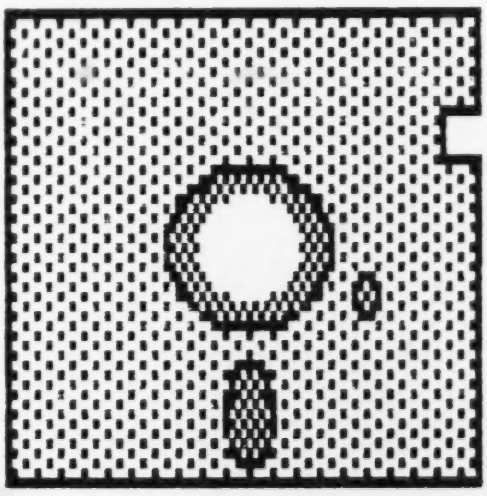
MAKING A COPY WITHOUT PERMISSION IS AGAINST THE LAW.

I PROMISE NOT TO COPY SOFTWARE THAT IS PROTECTED BY COPYRIGHT LAW.

SIGNED _____
STUDENT SIGNATURE

_____
PARENT SIGNATURE

_____
DATE



BEST COPY AVAILABLE

To Students and Parents:

Please read the following policy statement. Sign and return it to _____. If you have any questions, please write them on the other side of this form or communicate with the instructor by phone. Thank you.

SOFTWARE POLICY

Software that is copyrighted is intended for use on the computer system of the original purchaser. Backup copies can be produced only if written permission is granted by the manufacturer. The U.S. Copyright Law states that noncompliance may result in civil damages not exceeding $50,000 and criminal penalties of up to one year and/or a $10,000 fine. It should be noted that minors are not exempt.

For the above stated reasons, the use of MCPS computer facilities to copy commercial software for personal or classroom use without written permission from the manufacturer is expressly prohibited. It is requested that students not bring any copied or commercial software programs into the computer center without permission from the instructor or computer center coordinator.

It is expected that all MCPS employees and students will adhere to this policy.

I have read, understood, and will comply with the above stated policy on software piracy.

_____ _____
Student's signature Date

_____ _____
Parent's signature Date

BEST COPY AVAILABLE

MONTGOMERY COUNTY
PUBLIC SCHOOLS
Administrative Regulation

Related Entries: EGB-EA

Copyright (year) by the Board of Education of Montgomery County
Rockville, Maryland

B. Using Copyrighted Materials

1. Use of Microcomputers and Software

MCPS staff, and students, and others using instructional microcomputers and MCPS software are expected to comply with the following guidelines regarding the use of copyrighted and/or licensed software:

a) In observance of the copyright provisions for copyrighted disks, it is illegal to:

1) Copy a disk without the written permission from the vendor
2) Use one piece of software to boot more than one machine at a time unless "licensed by the vendor"
3) Use a BACKUP DISK at the same time the original is being used
4) Reproduce manuals or parts of manuals documenting software without written permission from the vendor
5) Use educationally licensed software for personal or school use other than "direct training" of staff and students

b) Staff should read and be aware of the student software piracy statement and the requirements to obtain a computer user's card. Students and staff in schools having computer laboratories are required to qualify for a user's card before using MCPS equipment independently.

c) In situations where the documentation directs or suggests that the user make a copy of the software prior to use (e.g., Pascal), only one set of copies can be made.

d) Staff should report missing or malfunctioning software to the manager of Processing Services.

e) Software checked out to a staff member may not be loaned to a third party.

f) The media specialist will receive, process, maintain, and keep the appropriate records for all software. The media specialist will check out software to appropriate staff, and copies of appropriate licensing agreements will be kept on file in the Media Center.

g) Staff should read and be aware of any special licensing agreement that may pertain to the use of the software.

V WHO TO CALL FOR HELP WITH PROBLEMS AND CONCERNS

The following is a list of people and places to call for answers to questions, arranged alphabetically by subject.

Cables and connectors - order from Maintenance on Work Order (Form 230-5). Call Maintenance, 997-1378, for cost of parts needed. Call the area TSA with questions about cables and connectors.

Computer equipment purchasing - Beverly Sangston, CRI, 279-3744.

Computer Literacy/Computer Science Curriculum - CRI Staff, 279-3321.

Instruction/Planning - Ellen Pruitt, DIR, 279-3494.

Microcomputer repairs - Equipment Section, 279-3102.

Software evaluation - Ron Baralato, E&S, 279-3822.

Software operation - CRI Staff, 279-3321.

Software warranty - Charles Worsley, Processing, 279-3122.

Warranty service on hardware - Equipment Section, 279-3102.

GLOSSARY

TERM	DEFINITION
Access	Process of acquiring information from a computer system or file.
APPLESOFT	BASIC language built into the Apple computer.
ASCII	American Standard code for information interchange. Standard code that assigns specific bit patterns to each sign, symbol, numeral, letter, and operation in a specific set.
BASIC	Beginners All-purpose Symbolic Instruction Code. A conversational computer language that uses words, instead of symbols, for programming.
Binary	Refers to the base 2 number system in which only the digits 1 and 0 are used.
Binary File	Information stored as a file of binary numbers.
Bit	Single binary digit, smallest unit of information the computer understands.
Bug	Error which prevents a program from working properly.
Byte	Group of bits, usually represents one character.
Character	Single letter, number, symbol, or space.
Chip	Tiny piece of silicone that is embedded with hundreds or thousands of electronic circuits.
Command	Instruction to a computer.
Compatible	Quality possessed by a computer system that enables it to handle data and programs that were devised for some other type of computer system.
CompuServe	On-line information service that provides the subscriber with access to data bases and allows for networking with other system users.

Control Character	A character without graphic meaning that instructs the computer to perform a specific funciton.
CPU	Central Processing Unit. Part of the computer that interprets instructions, performs calculations, compares and stores data, and directs the operation of a computer system.
CRT	Cathode Ray Tube. Display portion of a television, monitor, or videc terminal.
Cursor	A symbol on the computer's monitor showing where input will next appear on the screen.
Data	Information put into, processed by, or taken out of a computer.
Data base	Information that is organized, stored, and cross-referenced by a computer.
Dedicated	A computer or other machine that is assigned to one particular user or application.
DIALOG	An on-line utility containing hundreds of unique data bases. Fee is charged for online time.
Disk drive	Unit that reads and/or writes data on or from a floppy disk.
Disk/disc	Device that looks like a phonograph record on which large amounts of data may be stored. It may be hard or floppy, recordable on one or two sides, and single or double density.
Display	Video screen. See CRT.
Documentation	A written description of a computer program or system. Software documentation is information about a specific program including title and purpose, directions for use, data and equipment needed for use.
DOS	Disk Operating System. Organized collection of software that controls overall operations of a computer.

Download	Provides for the transfer of files to your computer from another computer via a modem.
Duplex	A term which describes the mode of communication between computers. Full duplex means that two computers can communicate in both directions simultaneously. Half duplex means that only one computer can "talk" at a time.
Electronic Bulletin Board	Information service established by a special interest group and accessed via a computer with a modem. Among other things, it may contain messages, activities, and ways to upload and download information.
Electronic Spreadsheet	Software that enables the computer to be used as an electronic accounting sheet to calculate, manipulate and forecast information.
Emulator	Type of program or device that allows user programs, written for one particular type of computer system, to be run on another system.
Erase	To delete information from the computer's memory.
Error Message	Printed statement demonstrating that the computer has detected a mistake or malfunction.
Field	A specific part of a record that contains a unit of information, e.g., one field in a student's record may be the student ID number.
File	A collection of related records treated as a unit.
File Name	A collection of related records treated as a unit.
Floppy Disk	A disk used to store computer programs and data. Made from plastic and coated with magnetic material. Bends if held by the edge.

Form	A preprinted document that requires more information to make it meaningful. Format of the program output.
Form Feed	Physical transport of continuous paper in a printer to the beginning of a new line or page.
Format	To prepare a disk or use. Initialize.
Glitch	An unplanned electronic pulse in the computer that causes a program to make an error or fail all together.
Graphics	Computer output in the form of display, drawings, and pictures.
Graphics Tablet	A peripheral that translates designs drawn on a pad to an output device such as a CRT or printer.
Hard Copy	Output that is printed on paper.
Hardware	Physical parts of the computer system, equipment.
I/O--Input/ output	Devices, as well as the process for entering information into and taking information out of a computer, e.g., printer, keyboard, CRT, etc.
Initialize	To prepare a disk so that it can store information. Format.
Interactive	Type of program in which the user "converses" with the computer.
Interface	Device that links two parts of a computer. Can also be a device that links a computer with a peripheral or another computer.
Item	Unit of storage that is within a larger unit, such as a field in a record.
Joystick	Peripheral device used primarily for graphics and computer games.
Justify	Placement of data that is shorter in length than the available field into the most right or left position in the field. Commonly used in terms of margins when using word processing programs.

Keyboard	Typewriter that is a terminal used to enter information into a computer.
Letter Quality Printer	Typewriter quality printer.
Line Feed	Operation that advances the paper in a printer by one line.
Log Off	Breaking communication with another computer. May be as simple as typing "bye."
Log On	Process of establishing communication with and verifying the authority to use the computer during conversational programming. May call for an ID number and/or a password.
Matrix Printer	Printer that uses a matrix of dots to form an image of the character being printed.
Menu	List of program options from which to choose.
Microcomputer	A complete small computer system.
Modem	A computer peripheral device that allows a computer to interface with another computer over the telephone lines.
Monitor	High resolution CRT.
Motherboard	Main board in a computer into which the circuits are plugged.
Network	System of interconnected computer systems and terminals.
On-Line	A term which refers to the process of communicating directly with a larger computer system and accessing information immediately.
Parallel	Data transmitted so all parts of a word are handled simultaneously, eights bits at a time.
PASCAL	Computer language that is similar to BASIC but more powerful.

Password	A personal secret code that gives one access to a computer system. Its use helps maintain system security.
PC	Abbreviation for Personal Computer.
Peripheral Device	Extra equipment that can be connected to a computer, e.g., printer, joystick, modem.
Personal Computer	A microcomputer.
Printer	Typewriterlike device controlled by a computer. Prints the results of programs, information retrieved from memory, and other computer output on either individual or continuous strips of paper.
Program	Sequence of instructions written to make the computer perform a certain task. It tells the computer what to do and how to do it.
RAM	Random Access Memory. It means that one can go directly to the location in the memory needed without searching the entire contents of the memory in sequence.
Record	A group of related fields treated as a unit. A completed form.
ROM	Read Only Memory. The computer's programming language and built-in operating instructions used by the computed are stored in ROM.
Scrolling	Data display technique for a CRT. When the screen is full the next line comes up from the bottom and the top line disappears from view.
Search	The act of requesting the computer to respond to a specific information need, a query.
Serial	Technique for handling information in sequence, one bit at a time.

Shell Program	A computer program to which the user can add his/her own data--words, questions/answers, sentences--which become part of the program's output.
Simulation	A model of how things work under different conditions. They help us to learn about things that are hard to bring into the classroom.
Sleeve	Paper envelope in which a disk is stored.
Software	Programs that instruct the computer how to operate that may be written or bought.
Sort	To arrange records according to a logical system such as alphabetically or numerically.
Spreadsheet	An accounting sheet. See electronic spreadsheet.
Storage Capacity	Number of items of data which a storage device is capable of containing. Frequently defined in terms of bytes.
Tele-communications	A computer message that travels on communications lines, usually telephone.
Template	Pattern used when preparing a data file or spreadsheet program.
Terminal	A keyboard and a video display in a single unit. A keyboard sends information to the computer and the video screen displays the computer output.
Text File	File of characters to be accessed by another program.
Upload	Provides for the transfer of files from your computer to another computer via a modem.
User-Friendly	A computer system that is easy to use. A user-friendly system checks errors, displays information in readable formats and tells the user what to do next.

Utility Program	A program that helps the computer carry out frequently required activities, such as sorting files or transferring information from one device to another.
Voice Synthesizer	Electronic circuit that simulates the human voice.
Word Processing	Use of a computer to store poems, plays, letters, and any other text that you write. A word processing program usually includes ways to edit which allow you to change, insert, delete and move words or sections of words around.

VII. LIST OF MCPS RESOURCES

Department of Computer-Related Instruction. Computer Keyboarding. Rockville, Maryland: Montgomery County Public Schools, 1984.
Type of Document: Curriculum Guide (DRAFT)
Ordering Information: Computer-Related Instruction, 279-3744
Grades: 7-8

Department of Computer-Related Instruction. Computer Literacy Applications Unit. Rockville, Maryland: Montgomery County Public Schools, 1984.
Type of Document: Curriculum Guide (DRAFT)
Ordering Information: Computer-Related Instruction, 279-3744
Grades: 7-8

Department of Computer-Related Instruction. Computer Literacy/Computer Science Education for Grades 9-12. Rockville, Maryland: Montgomery County Public Schools, 1984
Type of Document: Flier
Ordering Information: Computer-Related Instruction, 279-3744
Grades: 9-12

Department of Computer-Related Instruction. Computer Literacy Education for Grades K-8. Rockville, Maryland: Montgomery County Public Schools, 1984.
Type of Document: Flier
Ordering Information: Computer-Related Instruction, 279-3744
Grades: K-8

Department of Computer-Related Instruction. Computer Writing Project. Rockville, Maryland: Montgomery County Public Schools, 1984.
Type of Document: Curriculum Guide (DRAFT)
Ordering Information: Computer-Related Instruction, 279-3744
Grades: 7-8

Department of Computer-Related Instruction. Managing Information With Data Bases. Rockville, Maryland: Montgomery County Public Schools, 1984.
Type of Document: Curriculum Guide (DRAFT)
Ordering Information: Division of Supply and Property Management 279-3804
Grades: 7-8

Department of Computer-Related Instruction. World Studies Data Base Activities. Rockville, Maryland: Montgomery County Public Schools, 1984.
Type of Document: Curriculum Guide (DRAFT)
Ordering Information: Division of Supply and Property Management, 279-3804
Grade Level: 5

Department of Instructional Resources. Computer Literacy, Bibliography Series, Volume II, Number 2. Rockville, Maryland: Montgomery County Public Schools, 1982.
Type of Document: Bibliography
Ordering Information: Professional Library, 279-3227
Grade Level: Professional

Department of Instructional Resources. Computerized Database Searching In Your Media Center. Rockville, Maryland: Montgomery County Public Schools, 1982.
Type of Document: Flier
Ordering Information: Department of Instructional Resources, 279-3215
Grades: 6-12

Department of Instructional Resources. A Guide to the Apple II. Rockville, Maryland: Montgomery County Public Schools, 1982
Type of Document: Flier
Ordering Information: Department of Instructional Resources, 279-3215
Grades: 5-12

Department of Instructional Resources. A Guide to Using the MCPS/DIR Computerized Bulletin Board System. Rockville, Maryland: Montgomery County Public Schools, 1983.
Type of Document: Flier
Ordering Information: Department of Instructional Resources, 279-3215
Grades: 6-12

Department of Instructional Resources. Instructional Objectives for Information Retrieval and Media Production. Rockville, Maryland: Montgomery County Public Schools, 1978.
Type of Document: Objectives Booklet
Ordering Information: Department of Instructional Resources, 279-3215
Grades: K-12

Department of Instructional Resources. Media Skills Activities Handbook. Rockville, Maryland: Montgomery County Public Schools, 1981-1982.
Type of Document: Curriculum Document
Ordering Information: Department of Instructional Resources, 279-3215
Grades: K-12

Ting, David and Winakur, Eric. DIALOG User's Manual. Rockville, Maryland: Montgomery County Public Schools, 1984.
Type of Document: Booklet
Ordering Information: Department of Instructional Resources, 279-3215
Grades: 9-12